



# Ethnobotany Approach Taperas of Maroon Communities of Alcântara, Maranhão, Brasil

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## Abstract

Alcântara is the second oldest city in the state of Maranhão, which had its splendor even at the time of colonial Brazil, standing out as a major producer of sugar cane and cotton. The agrarian history of the city is old, dating back more than 3 centuries. Founded in 1648, was an important Maranhão region, besides the production of sugar cane and cotton producing cattle, salt, and food crops, mainly cassava, maize, rice and beans, reaching its best productive time in the mid-nineteenth century. Currently there are about 200 quilombo remaining areas in Alcântara. The objective was to take stock of existing medicinal species in Taperas (areas previously occupied by human presence, and then ruins) of quilombola communities of Manival - coordinates (S 02° 22' 26.6"; WO 44 29' 27.4") and Castelo - coordinates: (S 02° 24' 43.1"; WO 44 36' 03.07"). In the study were interviewed 5 residents in Manival community and 7 residents of Castelo community to locate Taperas and date the time of abandonment. Taperas were found aged between 30-50 years of neglect. Raised 24 species distributed among 15 families where 2 species were intentionally introduced for cultivation and at one point abandoned as cultivated species: as cotton (*Gossypium arboreum* L. - Malvaceae) and mango (*Mangifera indica* L. - Anacardiaceae). The most representative botanical families were Euphorbiaceae (16.66%), Arecaceae, Fabaceae and Malvaceae with 8.33% each. The leaf is 50% utilization of the plant parts. The medicinal uses are varied to control lice and fleas, treat kidney problems, blood cleanser, general pain, and even for treatment of gastritis.

**Keywords:** Medicinal plants, Ruderal, Secondary vegetation

## Introduction

The town of Alcântara has the second oldest city in the state of Maranhão, which had its splendor even at the time of colonial Brazil, when it emerged as a major producer of sugar cane and cotton. The agrarian history of the city is old, dating back more than three centuries. Founded in 1648, was an important Maranhão region because besides the production of sugar cane and cotton producing cattle, salt, and food crops, mainly cassava, maize, rice and beans, reaching its best productive time in the mid-nineteenth century.<sup>1,2</sup>

After the golden age, established the plantation system of the crisis in Brazil, weakening the local economy and affecting the agricultural system. As a result of non-recovery of this production system, which had in its slave labor force majeure, blacks were abandoned on the land where once were enslaved, verifying the formation of a peasantry marked by tracts of land transfer to former slaves, setting

a pattern of not exporting agriculture, using lands mutually. In relation to this peasantry in common use, it is worth mentioning the role that called quilombos played on consolidation.<sup>3</sup>

From the point of view of the relationship that man keeps with the environment, it is worth remembering that to settle in places considered safe and rich in water, wildlife and other natural resources, provided the man try and enter in the areas surrounding native vegetation, or even by removing the forest, some plants of which became dependent.<sup>4</sup>

Nevertheless, the relevance of useful plants in human occupations occurs in plants found in ancient sites whose use was discontinued, leaving at most archaeological remains and plant samples of the species previously used.<sup>4</sup> Among the spontaneous plants living in the media created by human dwellings and outbuildings, are calls, ruderal, referring to the vegetation growing in the streets, on roofs,



in ruins, on gravel, removed land, among other environments provided by man.<sup>5</sup>

Nevertheless, in the municipality of Alcântara, State of Maranhão, Brazil, the quilombola communities called the ruins, abandoned houses and debris at Taperas name, plus the category covering the “masters,” that is, referring to the former owners, as white shack, indian shack, etc.<sup>1</sup> The objective was to survey existing medicinal species in Taperas in quilombola communities of Manival and Castelo in the town of Alcantara, Maranhao, Brazil.

For purposes of this study, we considered the quilombola communities of Manival - coordinates (S 02° 22' 26.6"; WO 44 29' 27.4") and Castelo - coordinates: (S 02° 24' 43.1"; WO 44 36' 03.07").

## Materials and Methods

### Pre-trial

In the pre-trial phase, the ethical and legal steps involving human research and access to traditional knowledge associated with genetic resources in the country, this phase consisting of 2 milestones have been met: under authorization of the ethics committee in research CAAE number: 15429513.8.0000.5411 and access to traditional knowledge associated with genetic resources - IPHAN, published in the Official Gazette, number 214 of November 5, 2014.

For this study, the snowball techniques were used to identify the knowledgeable people of medicinal plants in these communities where informal interviews were applied. In addition, some informants were selected to participate in the tour-guided technique.<sup>6</sup>

## Results and Discussion

We interviewed five residents in the community of Manival and 7 residents of Castelo community, making 12 respondents. It thus resulted in a small but qualified sample about it. A total of 24 plant species distributed among 16 botanical families (Table 1) was raised. Of these, the most representative botanical families were Euphorbiaceae (16.66%), Arecaceae, Fabaceae, Malvaceae and with 8.33% respectively. Of these, 2 species were intentionally introduced for cultivation and at one point abandoned as cultivated species: cotton (*Gossypium arboreum* L. - Malvaceae and mango (*Mangifera indica* L. - Anacardiaceae). Most Taperas have ages ranging from 30-50 years, however, most of the listed species occurs in ruderal areas close to residential, like melão-de-são-caetano (*Momordica charantia* L. - Cucurbitaceae), jalapa de purga (*Operculina macrocarpa* (L.) Urb.- Convolvulaceae), pião branco (*Jatropha mollissima* [Pohl] Baill - Euphorbiaceae), pião roxo (*Jatropha gossypifolia* L - Euphorbiaceae), cansanção

**Table 1.** Species of Medicinal Plants, Scientific Names, Common Names, Family, Uses and Used Parts

Scientific Name	Local Name	Family	Main Uses	Part used
<i>Gossypium arboreum</i> L	Algodão	Malvaceae	Postpartum uterine cleaning	Leaf
<i>Mansoa standleyi</i> (Steeyer.) A.H. Gentry	Alho do mato	Bignoniaceae	Control lice and fleas	Leaf
<i>Orbignya phalerata</i> Mart.	Babaçu	Arecaceae	stomach	Seed, Leaf
<i>Physalis angulata</i> L	Camapu	Solanaceae	Liver	Root, leaf
<i>Machaerium aculeatum</i> Raddi	Campestre	Fabaceae	expectorant	flower
<i>Costus spicatus</i> (Jacq.) Sw.	Cana da índia	Costaceae	blood pressure	Leaf
<i>Cnidocolurens</i> (L.) Arthur	Cansanção	Euphorbiaceae	Inflammation in general	root
<i>Ricinus communis</i> L	Carrapato	Euphorbiaceae	Purgative, ointment	seed
<i>Turnera ulmifolia</i> L.	Chanana	Passifloraceae	stomachic	root
<i>Cecropia</i> sp.	Embaúba	Urticaceae	Kidney problems	nectar
<i>Operculina macrocarpa</i> (L.) Urb.	Jalapa de purga	Convolvulaceae	Debugger blood	potato
<i>Acrocomia aculeata</i> (Jacq.) Lodd. Ex Mart	Macaúba	Arecaceae	ophthalmological	fruit
<i>Mangifera indica</i> L.	Mangueira	Anacardiaceae	expectorant	Leaf
<i>Senna alata</i> (L.) Roxb.	Mata pasto	Fabaceae	hemorrhoid	Leaf and flower
<i>Momordica charantia</i> L.	Melão-de-são-caetano	Cucurbitaceae	lice and fleas control	Leaf
<i>Jatropha mollissima</i> (Pohl) Baill.	Pião branco	Euphorbiaceae	Body pains, thrombosis	Seed
<i>jatropha gossypifolia</i> L.	Pião roxo	Euphorbiaceae	Headache	Leaf
<i>Phyllanthus amarus</i> Schumach. & Thonn.	Quebra pedra	Phyllanthaceae	kidney problems	whole plant
<i>Petiveria alliacea</i> var. tetrandra (B.A. Gomes) Hauman.	Tipi	Phytolaccaceae	Softness in the body	Leaf
<i>Hyptis mutabilis</i> (Rich.) Briq.	Sete sangrias	Lamiaceae	allergy	Leaf
<i>Astrocaryum vulgare</i> Mart.	Tucum	Arecaceae	pulls thorn	Seed
<i>Spermacoce verticillata</i> L.	Vassoura de botão	Rubiaceae	stomach	Root
<i>Hibiscus acetosella</i> Welw. Ex Hiern	Vinagreira roxa	Malvaceae	gastritis	Leaf

(*Cnidocolurusurens* (L.) Arthur – Euphorbiaceae), carrapato (*Ricinus communis* L. - Euphorbiaceae), *chanana* (*Turnera ulmifolia* L.- Passifloraceae), alho do mato (*Mansoa standleyi* [Steerm.] A.H. Gentry - Bignoniaceae), quebra pedra (*Phyllanthus amarus* Schumach. & Thonn. – Phyllanthaceae), tipi (*Petiveria alliacea* var. *tetrandra* (B.A. Gomes) Hauman. – Phytolaccaceae), sete sangrias (*Hyptis mutabilis* (Rich.) Briq. – Lamiaceae), vassoura de botão (*Spermacoce verticillata* L. – Rubiaceae) and vinagreira roxa (*Hibiscus acetosella* Welw. Ex Hiern. – Malvaceae).

The babassu (*Orbignya phalerata* Mart.-. Arecaceae) common in the areas of tapera, dominate the landscape, providing a monospecific forest, functioning as previous human occupation of the indicator occurred in these environments, linked to the practice of farming like “plantation on the stump” (clearing and burning).

Contrary to this expectation, in a survey conducted with useful plants in Taperas in rural areas in the states of Minas Gerais, the Federal District, São Paulo, Mato Grosso do Sul and Rio Grande do Sul, realize that the vast majority of the plants were intentionally introduced, however, some species are ruderal, or follow the man as invasive of their agricultural areas.<sup>4</sup>

As the plant parts used, the sheet is 50%, followed by seeds and roots with their 16.66%, flower with 8.33%, the other plant parts added together, represent 12.5% of the parts used in the preparation of home remedies. However, the predominance in the use of the sheet, or shell, often save a relationship with the occurrence environment of these plants, thus in general, other plant parts such as flower and fruit subject to seasonality.<sup>7</sup>

The medicinal uses are varied, ranging from control of lice and fleas, treat kidney problems, blood cleanser, general pain, and even for treatment of gastritis.

### Conclusions

The currently existing Taperas are between 30-50 years. Most of the 24 species surveyed are distributed among 15 botanical families where both species were intentionally introduced for cultivation and at one point abandoned as

cultivated species: cotton and mango (*Mangifera indica* L. - Anacardiaceae), the rest of the species are ruderal. The most representative botanical family in numerical terms is the Euphorbiaceae with 16.66%. The sheet is 50% utilization of the plant parts. The medicinal uses are varied, ranging from control of lice and fleas, treat kidney problems, blood cleanser, general pain, and even for treatment of gastritis.

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